



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/777,739 | 02/11/2004 | Robert E. Ober | 20658/0203684-US0 | 5608 |

38881 7590 11/02/2006

DICKSTEIN SHAPIRO LLP
1177 AVENUE OF THE AMERICAS 6TH AVENUE
NEW YORK, NY 10036-2714

| |
|----------|
| EXAMINER |
|----------|

THAI, TUAN V

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2186

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/777,739 | OBER ET AL. | |
| | Examiner | Art Unit | |
| | Tuan V. Thai | 2186 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 12-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/10/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

Part III DETAILED ACTION

Specification

1. This office action is in response to election filed 10/13/2006. Claims 1-11 are presented for examination. Claims 12-34 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to non-elected invention, there being no allowable generic or linking claim. Election was made without traverse in the reply filed on 13 October 2006.

2. Applicant is reminded of the duty to fully disclose information under 37 CFR 1.56.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5 and 10-11 are rejected under 35 U.S.C. § 102(e) as being anticipated by Janik et al. (USPN: 6,754,116); hereinafter Janik.

AS per claim 1, Janik discloses a memory system comprising a multi-bank memory having a first memory bank and a second memory bank (e.g. see figure 2); a muxing circuit coupled to the multi-bank memory (e.g. see figure 2); a first memory access device coupled to muxing circuit is taught as processor 3 (e.g. see figure 2); and a second memory access device coupled to the muxing circuit is taught as BITST 2 (e.g. see figure 2); wherein the muxing circuit is configurable to couple the first access device to the first memory bank and the second memory bank, and the muxing circuit is configurable to couple the second access device to the first memory bank and the second memory bank (e.g. see figure 2; column 2, lines 48 et seq.; column 3, lines 16 et seq.; column 5, lines 41-48).

As per claim 2, the third memory is embedded in the system of Janik as multiple banks being taught wherein the muxing circuit is configurable to couple the first access device to the third memory bank and the muxing circuit is configurable to couple the second access device to the third memory bank (e.g. see column 5, lines 41 et seq.).

As per claim 3, Janik discloses a third memory (coupling to external line 5, figure 2) access device coupled to the muxing circuit and wherein the muxing circuit is configurable to couple

the third access device to the first memory bank and the second memory bank (e.g. see column 8, lines 9 et seq.).

As per claims 4 and 5, Janik discloses wherein the muxing circuit is configured to couple the first/second access devices to the first memory bank and the second access device to the second memory bank so that the first memory access device can access the first memory bank when the second/first access device is accessing the second memory bank (e.g. see column 5, lines 41 et seq.).

As per claim 10, Janik discloses the first memory access device is processor 3 (e.g. see figure 2).

As per claim 11, Janik further discloses the second memory access device is a DMA controller or BIST 2 (e.g. see figure 2).

Rejections - 35 USC 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Janik et al. (USPN: 6,754,116); hereinafter Janik in view of Carnevale (USPN: 6,430,648).

As per claims 6-9, Janik discloses the size of memory banks is a system dependent feature and operates at different frequencies (e.g. see column 2, lines 3 et seq.; column 8, lines 61 et seq.). Janik does not particularly disclose the first memory bank is larger than the second memory bank, and wherein the first memory bank is of the first memory type being DRAM, and the second memory bank is of the second memory type being SRAM. Carnevale, in his teaching of arranging address space to access multiple memory banks, discloses the missing elements that are known to be required in the system of Janik in order to arrive at Applicant's current invention wherein Carnevale discloses his system comprises multiple memory banks of different types and sizes, wherein the first type being DRAM and the second memory type being SRAM (e.g. see column 1, lines 62 et seq.; column 4, lines 45 et seq.). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the current invention was made to utilize the teaching Carnevale and to implement the first memory bank is larger than the second memory bank (since the bank size can be of different sizes), and the first memory bank is of the first memory type being DRAM, and the second memory bank is of the second memory type being SRAM for that of Janik system. In doing so, it would increase and enhance

Janik system adaptability and allowing Janik's system serving broader ranges of application, therefore being advantageous.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V. Thai whose telephone number is (571)-272-4187. The examiner can normally be reached on from 6:30 A.M. to 4:00 P.M.

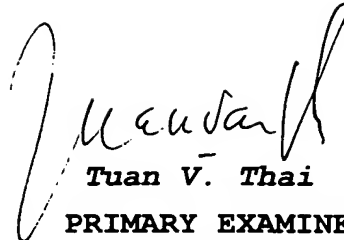
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew M. Kim can be reached on (571)-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see **<http://pair-direct.uspto.gov>**. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Serial Number: 10/777,739
Art Unit: 2186

-7-

TVT/October 24, 2006


Tuan V. Thai
PRIMARY EXAMINER
Group 2100